

What is claimed is:

1. A method for manufacturing a  
bare-fiber-metal-coated optical fiber having a bare  
5 fiber and a resin cover with which the peripheral  
surface of the bare fiber is covered except for part of  
the fiber-end side of the bare fiber; the bare fiber  
being exposed by removing the resin cover at the part  
of the fiber-end side thereof and being provided with a  
10 metallic coating on its peripheral surface excluding an  
end face portion of the bare fiber; the method  
comprising:

a subbing-layer formation step of forming, on the  
peripheral surface of the bare fiber having been  
15 exposed by removing the resin cover and on which the  
metallic coating has not been provided, a metallic  
subbing layer consisting of an electroless plating  
layer with a thickness necessary for electrolytic  
plating and an electrolytic plating layer;

20 an end face treatment step of subjecting the bare  
fiber on which the subbing layer has been formed, to  
end face treatment by means of an optical-fiber cleaver  
to expose an end face portion of the bare fiber; and

a surface layer formation step of subjecting the  
25 bare fiber on which the end face treatment has been  
carried out, to electrolytic plating to form the

metallic coating as a surface layer.

2. The bare-fiber-metal-coated optical fiber manufacturing method according to claim 1, wherein said  
5 subbing layer consists essentially of an electroless nickel plating layer of from 0.01  $\mu\text{m}$  to 1.5  $\mu\text{m}$  in thickness and an electrolytic gold plating layer of from 0.03  $\mu\text{m}$  to 0.1  $\mu\text{m}$  in thickness which has been formed on the electroless nickel plating layer.

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3. The bare-fiber-metal-coated optical fiber manufacturing method according to claim 1 or 2, wherein said surface layer consists essentially of an electrolytic nickel plating layer and an electrolytic  
15 gold plating layer having been formed on the electrolytic nickel plating layer.

4. The bare-fiber-metal-coated optical fiber manufacturing method according to claim 3, wherein said  
20 electrolytic nickel plating layer is set in a thickness of from 0.5  $\mu\text{m}$  to 4.0  $\mu\text{m}$ , and said electrolytic gold plating layer in a thickness of from 0.05  $\mu\text{m}$  to 1.0  $\mu\text{m}$ .

5. The bare-fiber-metal-coated optical fiber  
25 manufacturing method according to claim 3, wherein said electrolytic nickel plating layer and said electrolytic

gold plating layer are constituted of nickel and gold, respectively, each having a purity of 99.9% or more.